

## REMARKS

In response to the Office Action dated 20 April 2005, Applicant has amended Claims 1 – 3, and 6 – 11, and added new Claims 16 - 22. Claims 4 and 5 were previously cancelled. Claims 12 – 15 were withdrawn from consideration in the previous Office Action. Claims 1 – 3, 6 – 11, and 16 – 22 are currently pending in the application.

This response is being filed in conjunction with a petition to revive, necessitated as a result of Applicant not receiving the previous Office Action. A separate petition is enclosed herewith.

Applicant has amended the title as required, and included a new abstract.

Numerous claim amendments have been made to overcome the claim objections set forth in paragraphs 4 - 6 of the Office Action. These amendments address the formal issues set forth therein, and further clarify the nature of the invention.

In general, the invention can be used with, and in addition to, existing prior art systems such as the cited Joseph patent. The apparatus of the claims includes the addition of a controller used to reposition the cage when the size of the film tube is to be changed. The new controller uses the distance between the sizing cage and the film tube to control operation of the positioning of the cage. In various aspects of the invention, such as that set forth in Claim 7 and claims that depend therefrom, the controller operates in two separate modes. The first, or “non-contact,” mode is used when the cage is still a relatively large distance from a “set-point,” or desired target location for the cage, while the second, or “contact,” mode is used when the cage is near the set-point.

The claims were rejected as obvious over Joseph in view of Schott. Such rejection is respectfully traversed. The following remarks are made based upon the claims as currently amended.

The cited Joseph patent teaches the use of a first non-contact sensor to measure the distance between the cage and the film tube. The sensor moves with the cage in order to accurately measure this distance. However, the first non-contact sensor as taught in Joseph is not used in any manner to provide feedback and control to an automated controller that is moving the cage subsystem. The information provided by the cage to film tube sensor in Joseph is merely used by the operator to manually control operation of the overall apparatus.

The Schott reference adds the use of sensors to measure the diameter of the tube. However, there is no teaching or suggestion in Schott to use the measured cage to tube distance in a feedback loop for an automatic controller to control cage sizing. In fact, in no prior art references is the cage subsystem to film tube distance used to control operation of an automatic cage sizing system.

In the cited portions of Joseph, the sensor itself is described as well as some of the distances, between the cage subsystem and the film tube, used to operate the overall system. However, there is no teaching at all regarding automated cage size control when starting up or changing the size of the film tube from its current size. The citations to Column 18, lines 25-45 refer to a one-time calibration of the transducer electronics by a technician, and is not operator controllable. As such, this does not refer or relate to automatic cage subsystem resizing. The Joseph reference does not have such automatic

cage control resizing capability at all, and certainly not through the use of the cage to film tube distance sensor.

The same remarks apply to the Schott reference. That reference does measure the diameter of the film tube, but does not provide any automatic cage size control when the cage size is changed during startup or resizing of the extruded film tube. Thus, there is nothing in Schott, alone or combined with Joseph or any other prior art, that suggests using the cage to film tube distance sensor to control automatic cage re-sizing.

Claim 1 includes a control routine in an automatic controller that uses the sizing cage subsystem to film tube distance, as measured by the first controller, to control location of the cage during the move. As described above, this entire subject is not taught nor suggested by any of the references. Claims 6 and 7 depend from Claim 1, and provide a system in which a cage positioning system uses an automatic actuator to reposition the cage, and (as set forth in Claim 7) operates in two separate modes. The forecast, or non-contact, mode is used when the cage is relatively far from its targeted set point. A contact mode is used when the cage is relatively close to the final set point, and is used to bring the cage in for a “soft landing” to the final location. This allows the cage to move relatively quickly during forecast mode, and more slowly during contact mode.

As provided in Claims 8 and 9, during forecast mode the cage moves by steps. As described in the specification, this is more appropriate when the cage has a relatively long distance to go, and keeps the sizing cage in close proximity to the extruded tube during the size change process. This is necessary to ensure the cage offers stability to the extruded tube during the size change process. In contact mode, adjustments are relatively

small, and the operator is permitted to introduce over or under values in order to more or less tightly squeeze the tube with the cage.

Claim 16 is similar to Claim 7, except that it introduces hysteresis into the control loop. Thus, the shift from forecast mode to contact mode and back are made at different distances from the set point.

The remaining features set forth in the various dependent claims also define patentable subject matter over the references. These features, in combination with the use of cage subsystem to film tube distance for automatic cage position control, are not suggested by any combination of references.

For the above reasons, Applicant believes that the claims as currently presented define patentable subject matter over the references, and are in condition for allowance. Applicant respectfully requests reconsideration and allowance of the claims in view of the above amendments and remarks.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Ken Hill', with a stylized flourish at the end.

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ATTORNEY FOR APPLICANT

Received in the U.S. Patent & Trademark Office

Re Application of Daniel R. Joseph

Serial No. 09/829,084; Filed 9 April 2001

*METHOD AND APPARATUS FOR AUTOMATIC CONTROL OF CAGE SIZE IN AN EXTRUDED FILM  
PRODUCTION LINE*

Enclosed:

1. Status Request;
2. Change of Address;
3. Our return postcard

Client: Daniel R. Joseph

Docket No. 0291MH-34638

Dated: 10 September 2008

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTORNEY DOCKET NO. 0291MH-34638

In re Application of

Daniel R. Joseph

Serial No.: 09/829,084

Filed: 9 April 2001

For: METHOD AND APPARATUS FOR AUTOMATIC CONTROL OF  
CAGE SIZE IN AN EXTRUDED FILM PRODUCTION LINE

STATUS REQUEST

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Dear Sir:

Applicant requests the current status for the above identified application. A petition to revive was filed on 9 October 2007, and no response has been received.

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Date of Deposit: <u>10 Sept. 2008</u>	By: <u>Elisabeth Rodriguez</u>

STATUS REQUEST

I hereby authorize the Assistant Commissioner to charge any additional fees which may be required, or credit any overpayment to Deposit Account No.50-1060.

Respectfully submitted,



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ATTORNEY FOR APPLICANT(S)

Date: 9/10/05

Enclosures

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0291MH-34638

In re Application of:

Daniel R. Joseph

Serial No.: 09/829,084

Filing Date: 9 April 2001

For: METHOD AND APPARATUS FOR AUTOMATIC CONTROL OF CAGE  
SIZE IN AN EXTRUDED FILM PRODUCTION LINE

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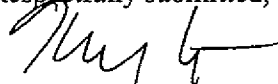
Commissioner for Patents  
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Alexandria, Virginia 22313-1450

Sir:

Please ensure that your records reflect the following address; if not, please update  
your records:

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Date: 9/16/08

ATTORNEY FOR APPLICANT(S)

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By: Elisabeth Rodriguez





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09/829,084

Method and apparatus for automatic control of cage size in an extruded film production line



Select New Case	Application Data	Transaction History	Image File Wrapper	Continuity Data	Published Documents	Address & Attorney/Agent	Display References
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## Transaction History

Date	Transaction Description
11-07-2005	Mail Abandonment for Failure to Respond to Office Action
11-04-2005	Abandonment for Failure to Respond to Office Action
09-28-2005	IFW TSS Processing by Tech Center Complete
04-20-2005	Mail Final Rejection (PTOL - 326)
04-18-2005	Final Rejection
04-05-2005	Date Forwarded to Examiner
02-28-2005	Response after Non-Final Action
02-28-2005	Request for Extension of Time - Granted
08-19-2004	Mail Non-Final Rejection
08-19-2004	Non-Final Rejection
08-03-2004	Date Forwarded to Examiner
07-19-2004	Response after Non-Final Action
07-19-2004	Request for Extension of Time - Granted
07-19-2004	Workflow Incoming amendment IFW
04-14-2004	Mail Notice of Informal or Non-Responsive RCE Amendment
04-08-2004	Notice of Informal or Non-Responsive RCE Amendment.
04-08-2004	Date Forwarded to Examiner
04-01-2004	Request for Continued Examination (RCE)
04-08-2004	DISPOSAL FOR A RCE/CPA/129 (express abandonment if CPA)
04-01-2004	Request for Extension of Time - Granted
04-01-2004	Workflow Incoming amendment IFW
04-01-2004	Workflow - Request for RCE - Begin
09-26-2003	Mail Final Rejection (PTOL - 326)
09-23-2003	Final Rejection
09-17-2003	Case Docketed to Examiner in GAU
08-19-2003	Date Forwarded to Examiner
08-08-2003	Response after Non-Final Action
08-08-2003	Request for Extension of Time - Granted
02-04-2003	Mail Non-Final Rejection
01-27-2003	Non-Final Rejection
10-22-2001	Case Docketed to Examiner in GAU
04-09-2001	Applicant Has Filed a Verified Statement of Small Entity Status In Compliance with 37 CFR 1.27
10-16-2001	Application Dispatched from OIPE
10-01-2001	Application Is Now Complete
07-06-2001	Notice Mailed--Application Incomplete--Filing Date Assigned
07-05-2001	Correspondence Address Change
04-21-2001	IFW Scan & PACR Auto Security Review
04-09-2001	Initial Exam Team nn

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EXHIBIT

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